



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,611	04/15/2002	Michael Cole	602-1558	8335

23644 7590 02/08/2005

BARNES & THORNBURG
P.O. BOX 2786
CHICAGO, IL 60690-2786

EXAMINER

NAGPAUL, JYOTI

ART UNIT	PAPER NUMBER
----------	--------------

1743

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/030,611	COLE, MICHAEL	
	Examiner	Art Unit	
	Jyoti Nagpaul	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8,12,13 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12-13 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 7,8,17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Objections

1. **Claims 17 and 18** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It should be noted that claims 17 and 18 are depended on canceled claim 9.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 12-13 and 16** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to Claims 12 and 13, the claims do not require a step for centrifuging thus making the method vague and indefinite. There is no positive recitation of the centrifuging, only the heating.

With respect to Claim 16, the combination recited by applicant of a vacuum chamber, drive means, heating means and a sample holder, but no interrelationship of these items is recited. It is vague and indefinite as to what the relationship is between the different elements recited.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-5,12-13, and 16-18** are rejected under 35 U.S.C. 102 as being anticipated by Kimura.

Kimura teaches sample holders (56, 58, and 60) are formed from a material having high thermal conductivity and are adapted to receive containers (62) each containing a sample to be evaporated. The containers are mounted in the holder, so that neither the latter sample containers nor their contents can receive radiant heat directly from the heat source, but only from the holder. (Refer to Figure 8, Col. 6, Lines 21-30) With respect to the reception of heat recited in claim 1 and shown in applicant's figure 5, the heat is directed to the underside of the main aluminum block, the heat is being transferred through the intermediate block (40). Kimura teaches a similar sample holder where the heat is directed to the underside of the main aluminum block (56, 58, and 62). The heat is supplied to the sample holders in turn heating the samples. The sample holder shields the samples from direct heat energy. Heat is transferred through a highly thermal conductive material such as aluminum to indirectly heat the samples. Kimura also teaches three sample holders that may be held at constant temperature. The temperatures of the aluminum blocks may be held at the same temperature. (Col. 5, Lines 21-24) Temperature control may be made through a holder. (Col. 14, Line 24) With respect to claim 4, as the structure of the sample holder of Kimura is identical to that claimed by applicant, it would be inherent that such a cross-section is selected so

Art Unit: 1743

that, in use, no appreciable temperature gradients exist during evaporation. With regards to Claims 12 and 13, Kimura discloses suitable air passageways may be cut in the sample rack and air of desired temperatures may be applied through such passageways to the sample tubes for more efficiently heating or cooling the reagents or other substances contained. (Col. 5, Lines 26-31) Therefore, the temperature is monitored and the heat energy is reduced or cut off if the temperature of the holder rises above a predetermined value. With regards to Claim 16, Kimura discloses a pressurized air conduit; the air is directed from the source into the storage vessel through valves (76,78,74 and 72). These valves hold the storage vessel in communication with the sample tube. (Col. 6, Lines 35-40) Thus, the sample holder is capable of operating in a vacuum chamber.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura in view of Sheeran (US 4832678).

Refer above for the teachings of Kimura.

Kimura fails to teach sample containers are mounted in one or more intermediate holders which in turn mounted in recesses in the sample holder.

Sheeran discloses a sample container (40) is mounted in one or more intermediate holder/tube adapter (14), which in turn is mounted in recesses in the sample holder. (See Figure 1)

It would have been obvious to one of the ordinary skill in the art to provide an adapter within the sample holder of Kimura in order to securely and firmly hold the sample containers of various sizes within the sample holder.

Allowable Subject Matter

8. **Claims 7 and 8** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regards to Claim 7, prior art fails to teach or fairly suggest the sample containers are held at a fixed angle to the vertical between 35 and 65.

With regards to Claim 8, prior art fails to teach or fairly suggest a spacing member between adjoining holders (stacked) in good thermal contact, so that the temperature of one holder will tend to be the same as the temperature of the other.

Response to Arguments

9. Applicant's arguments filed on November 12, 2004 have been fully considered but they are not persuasive. It is acknowledged by examiner that applicant recited "for centrifuging samples". However the applicant has not recited any step of centrifuging of the samples in the sample container in the claims only heating. It would appear that the arrangement and process of Kimura would provide such heating.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Nagpaul whose telephone number is 571-272-1273. The examiner can normally be reached on Monday thru Friday (8:00-4:30).

Art Unit: 1743

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN


Jill Warden
Supervisory Patent Examiner
Technology Center 1700